

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
PATENT APPLICATION

Entitled : FULL COOLING OF MAIN INJECTORS IN A TWO-  
HEADED COMBUSTION CHAMBER

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ABSTRACT OF THE DISCLOSURE

An injector of a two-headed combustion chamber of a turbomachine has a first feed tube which is connected to an annular injection piece for discharging primary fuel into the combustion chamber. It also has a second feed tube surrounding the first feed tube and connected to a cylindrical endpiece for discharging secondary fuel into said combustion chamber. This endpiece has an annular channel of diameter that is greater than the diameter of the second feed tube and that extends over its entire length. A third tube is provided that surrounds the second tube and that is connected to a tubular separation element which is inserted in the annular channel of the cylindrical endpiece so as to form two annular spaces in which a cooling fluid can flow over 360° all the way to the end of the injector.